

California Public Employees' Retirement System
Independent Review of the Actuarial Valuation
for the Legislators' Retirement System
as of June 30, 2010

Report Completed In Satisfaction of
Task 3 of Contract 2009-5377

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Overview

EFI Actuaries has conducted an independent review of the Actuarial Valuation of the Legislators' Retirement System (LRS) as of June 30, 2010. In general, we are able to certify that the liabilities computed in this Valuation are reasonable and were computed in accordance with generally accepted actuarial principles. However, EFI did discover a problem with the total actuarial liability for inactive members with a deferred benefit. A discussion of this issue is presented below.

Based on the assumptions and methods employed in the valuation, the actuarial liabilities and costs independently computed by EFI closely matched those in the Valuation.

The supporting calculations are presented in more detail below.

Methodology

Our review and certification involves three steps:

- Review of Methods and Assumptions

The actuarial assumptions and methods employed in the LRS Valuation were reviewed by EFI in order to establish whether they meet acceptable standards of actuarial practice.

- Independent Valuation

In order to verify the correctness of calculations in the LRS Valuation, EFI conducted an independent valuation using its own actuarial model. This independent valuation determines whether actuarial assumptions and methods are applied properly and yield the reported results.

In preparing our valuations, we relied on member and asset data supplied by CalPERS staff. As is usual in actuarial valuations, this data was neither audited nor independently verified.

- Reconciliation of Results

In the event that the figures computed by EFI fall outside of the established tolerances versus those computed by CalPERS' staff, reconciliation is required.

This reconciliation proceeds in four steps:

1. Establishing that the same member data has been used by EFI and by staff;
2. Researching methodological differences between the EFI and staff approaches to computing liabilities and costs;

3. Comparing individual test life results to uncover subtle differences in approach that may result in material differences in liabilities and costs.
4. Discuss with CalPERS Staff the nature and magnitude of the discrepancy and come to agreement on the cause and remedy.

Review of Methods and Assumptions

The actuarial methods and assumptions used in the LRS Valuation are well within acceptable standards of actuarial practice.

Actuarial assumptions used to compute System liabilities and employer costs include:

- A 6.0% annual rate of investment return, net of all expenses;
- Annual salary increases of 3.25%;
- Annual inflation of 3.0%
- Active and retired mortality rates developed based on actual CalPERS experience during the period from 1997 to 2007.

More detailed information concerning the valuation assumptions can be found in the 2010 CalPERS Experience Study Report. EFI also performed a review of this Experience Study, and evaluated demographic assumptions as part of that review.

Both CalPERS staff and EFI ignored the possible impact of benefit limitations under Internal Revenue Code Section 415 on liabilities and contribution rates. The effect of this Code section on liabilities would be immaterial.

Independent Valuation

The LRS Valuation was performed by CalPERS staff using the Actuarial Valuation System (AVS). EFI validated the calculations by creating an *independent* actuarial model to develop the valuation results. The only data common to the models was the participant data; the EFI model was developed separately, without reference to the one used by staff for the Valuation.

As established in our Proposal of Services, we expect the values of comparable items derived from the two models to differ by less than the percentages shown in the following table.

<u>Calculated Item</u>	<u>Acceptable Tolerance</u>
Number of members- active, retired, inactive	0%
Annual payroll and member contributions	0%
Present value of pay; present value of member contributions	1%
Present value of benefit obligations	5%
Annual normal cost, employer contribution rates	5%

These tolerances are sufficiently stringent to detect material differences between the models. Differences outside of the Acceptable Tolerances listed above would not necessarily cause a failure to certify the valuation, but would result in additional scrutiny and reconciliation to determine the reasons.

Tables 1 and 2 below show the results of the calculations. We note the fully projected liabilities produced by CalPERS and by EFI are in close agreement in total.

Reconciliation of Results

As seen in Table 1, one area in which the valuation results were not within the acceptable tolerance levels was the Present Value of Benefits for inactive members with a deferred benefit. Through an analysis of test lives, we discovered that this issue can be narrowed down to three individuals. The members in question are listed in Table 3 below.

Other than this discrepancy, the valuation results computed by EFI are well within acceptable tolerances of those computed by CalPERS staff.

Table 1: Independent Valuation Results

	CalPERS LRS Valuation	EFI Independent Valuation	EFI to PERS Difference	Within Tolerance
1. Present Value of Benefits for Active Members	\$ 12,277,685	\$ 12,747,425	3.83%	Yes
2. Present Value of Benefits for Inactive Members				
Deferred Vested & DRO	9,698,472	11,253,241	16.03%	No
Receiving Benefits	<u>93,974,562</u>	<u>89,304,500</u>	<u>(4.97%)</u>	Yes
Total	\$103,673,034	\$100,557,741	(3.00%)	Yes
3. Total Present Value of Benefits	\$115,950,719	\$113,305,166	(2.28%)	Yes
4. Assets	126,641,553	126,641,553		Yes
5. Present Value of Member Contributions	0	0	0.00%	Yes
6. Present Value of Employer Contributions	0	0	0.00%	Yes
7. Employer Contribution Rate	0.00%	0.00%	0.00%	Yes

Table 2: Demographic Comparison

	CalPERS LRS Valuation	EFI Independent Valuation	EFI to PERS Difference	Within Tolerance
Number of Members				
Active	14	14	0.00%	Yes
Retired	266	266	0.00%	Yes
Inactive	24	24	0.00%	Yes
Salaries and Contributions				
Total Payroll	\$ 2,159,181	\$ 2,159,181	0.00%	Yes
Present value of EE Contribs	\$ 0	\$ 0	0.00%	Yes

Table 3: Inactive Members with Discrepancy in Actuarial Liability

Member Last Name	Earnings	Years of Service	Liability - CalPERS	Liability - EFI	EFI vs PERS	EFI to PERS Ratio
Leonard	\$159,134	24	\$931,687	\$1,426,872	\$ 495,185	153%
Lockyer	\$169,743	24	\$811,414	\$1,243,967	\$ 432,553	153%
O Connell	\$184,301	24	\$1,106,857	\$1,842,469	\$ 735,612	166%